

## PEREGRINE FALCON

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(With a plate)

Of all the true passage peregrines, one that travels the longest distance during the course of its yearly migration, is the Tundra falcon, *Falco peregrinus calidus*. It breeds well within the Arctic circle and flies down south to the Persian Gulf area and beyond right up to the southern gates of Arabia. In rare cases it may even cross the Red Sea to enter Africa but this is not firmly established yet.

One has only to listen to the voice of Taymur Mirza, that legendary Persian falconer whose name is still a household word in the falconry circles of Iran, when he speaks in his famous treatise on falconry, to fully appreciate the qualities of this bird from a falconer's standpoint. In his book, he describes it as the yellowish almond coloured variety of the 'Behri' or the peregrine falcon. Our famous chronicler unacquainted with our modern scientific terminology, simply calls this bird the '*Rumali Shaheen*', and continues, "I have trained these peregrines to gazelle." Nevertheless he laments, "they are however delicate birds, bold and daring; they dash themselves impetuously against the gazelle's horns and thus frequently injure themselves fatally."

Having studied these falcons in captivity, and also having watched, over a considerable period of time, wild *calidus* falcons, I am absolutely convinced that accidents of the nature described by our worthy Taymur Mirza cannot alone be attributed, to their daring im-

petuousity as he calls it, but mainly to the style and tactics adopted by these birds when hunting game.

We had a large immature female *calidus* peregrine and out on the hunting field, time without number I have watched spellbound the vertical dives made by her when pursuing game. As soon as we had indication of small game (partridges) in the area we were quartering, the falcon would be unhooded and cast off the fist. She would immediately rise straight up to a height of three to four hundred feet and would maintain that ceiling not by glide soaring as is usually the practice with other peregrine's, but by racing back and forth above our heads till we got to flushing the quarry out of cover. She would then be seen descending in an almost vertical power dive on to the illfated target. I never tired of watching this fantastic performance by her. There was hardly any question of pursuing game for it always was a bolt from the blue leaving little if any chance at all for the hunted to escape. As you may have guessed, there did occur on several occasions some nasty accidents. I remember a time when a recalcitrant stone curlew refused to be flushed but would merely streak out on foot from the sanctuary of one lot of bushes to the next. Ultimately the peregrine tired of following its movements from up above and waiting for it to take wing, and so the next time the curlew raced from under one lot of brambles the falcon made a dive for it. When just about to be smitten by the peregrine, the curlew gin-

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gerly side stepped and the falcon landed at full force on the dry sandy river bed. It was only then that the wily curlew took wing, leaving behind a dazed and much shaken falcon. The impact was so forceful that the falcon after it had been collected from the ground just sat groggily on the fist for a long time. An adult female *calidus* falcon will normally run upto one pound and fifteen ounces in weight when directly taken from the trapper's net.

As a falconer my experience is that female birds fly best when they stand one pound twelve ounces in weight. Though heavy, they are always very keen, and will tackle almost any feathered game suitable for them. The principle to keep in mind about these falcons when attempting flights at game, is ofcourse to have them flying not above four hundred feet, as otherwise they would be inclined to wander away farther afield. In any case, because of their inherent tendency to executing power dives after whatever game they are being flown at, chances of a surer kill would be all the more, if the flight ceiling for these falcons at such times is restricted to 250/300 feet only.

Since these falcons are not very much disposed to soaring and 'waiting on', as the term goes, for any substantial length of time, one method to hold them in check, and from wandering and leaving the falconer, when they are flown or exercised, is to keep calling them constantly so that they keep lurking not far from the falconer, and also to intermittently swing the lure. If good sport is to be expected it will be imperative to have the falcon up for no longer than a few minutes at a time only. In the meanwhile the falconer or his assistant should be able to flush game from cover.

From all this it becomes clear as to why

Taymur Mirza's falcons generally got pinned on gazelles' horns when out hunting this small antelope. Nevertheless wonderful and successful flights may still be had at owls, kites, plover, partridges, cranes, magpies and some other birds as well. This falcon is a specialist of the first order and all that is required is the falconer's cooperation. Foremost point of great significance in the matter of flights is to have the quarry, as far as possible, directly below the falcon, at the moment of it being flushed out of cover. Alternately flights may be obtained when the falcon is cast from the fist at game. In such flights both hunter and hunted mount the sky in a series of what to the observer appears to be never ending spirals, till the falcon manages to gain higher elevation, rising well above the quarry. From then on spectacular series of stoops, all in quick succession, mark the beginning of the end for the illfated prey. In these mid-air strikes is clearly seen the vertical nature of plunging dives which generally is absent in other types of peregrine attack strategy.

For the benefit of the aspirant falconer, a description of the *calidus* peregrine in its juvenile state is attempted. In the adult or haggard phase there is little to distinguish this bird from its counterpart *peregrinus peregrinus*, or *peregrinus brevisrostris* falcons. After two or three moults, it becomes very difficult, even for the most experienced observer to be able to differentiate between it and the other passage peregrines of the same age group. Should at such times classification become necessary, careful examination of the falcon's attack and specially stooping pattern, ought to be made, Thereby alone will be seen the only indication that could possibly identify this falcon from the rest of the tribe.

A juvenile *calidus* peregrine has a frontal band of light yellow running across the fore-

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head that extends almost half way round its head. It has yellowish brown mustachial stripes, broadbased under the eyes and tapering down to a blunt end on either side of its neck. Crown of head and nape are light brown in colour with dark brown shaft streaks. Back feathers and wing-coverts are brown with flesh tinted spots and very pale edgings. Its rump and upper tail-coverts are pale brown, or cinnamon coloured, and obscurely banded. It has a greyish brown coloured tail with oblong cinnamon marks and a whitish pink tip. It also has dark bands running across it. In addition to this there is a prominent cinnamon spot under the chin and light brown streaks from below its chin to the area denoting its crop. All over the breast which is wheat coloured, are spread tear-drop shaped spots. Its feet and cere are grey yellow in colour but this, as any falconer will be able to tell you, is at very best a misleading factor, since colour of feet and cere will alter with the type of food a falcon has been feeding on. Usually food that is rich in vitamin B12, brings out a deep orange colour. On the sides and on the thighs are seen heart-shaped light brown spots. These diminish in size as they appear lower down on the falcons thigh extention. This falcon has, as in the case of most other falcons, very dark brown eyes. Its orbital lids are mostly light yellow in colour.

A *calidus* tiercel generally weighs sixteen ounces. One such falcon had strayed into the Gangetic plain. He was in his juvenile plumage, and was brought to me by a bird merchant who knew I was fond of hawks. Indeed he was a very pretty fellow and was the first tiercel of the kind I had so far come across. In the past I had seen and handled a number of *peregrinus peregrinus* tiercels but never before a *calidus* tiercel had come my way. However I was acquainted with female *calidus* fal-

cons. I therefore very promptly bought the tiercel hoping to send it to an English friend in England. At the time of buying him I noticed one of its middle toes to be badly scarred with the hard scab still adhering to the wound which had luckily dried up by now. I assumed this mark to be due to the ravage of some of the bigger kind of parrots which are often preyed upon by falcons and are in addition plentifully available in this area. However many months later I was able to get to the bottom of the story.

The hawk dealer pointed out that he had known the tiercel for quite some time and had tried his utmost to lure him to his trap but to no avail for it would not oblige by flying down to his net no matter what bait he used. It was by sheer accident one day that the falcon dived out of the sky to grab a pigeon out of his neighbours pigeon loft. Perhaps the tiercel miscalculated its rate of descent, or maybe he was so engrossed in capturing a pigeon that he did not notice the corrugated iron protrusion of the roof by the side of the loft. This bit of tin sheeting hit the tiercel's outstretched claw. The tiercel then, I was told slammed with a resounding smack, into the side wall of the building, and thus with all the wind knocked out of him he fell into the courtyard in a dazed condition. Snatching up a bedsheet that had been hung up in the yard to dry, the owner sprang with, as he later told me, much alacrity, and threw the sheet on it before the dizzy falcon could make good its escape. Later the falcon was brought and sold to me. And so the injury to its middle toe.

On looking back I was able to reconstruct the entire episode. The falcon by virtue of its peculiar habit was not accustomed to flying low in a shallow dive at game or bait tied behind the trapper's net. Capturing a *calidus* peregrine is more or less a matter of chance



than a deliberate lure and capture operation by any trapper. Though I have not tried it, I believe however that "Barak" method of capturing falcons would stand a reasonable chance of success in catching these falcons. No wonder Punjabi falconers dislike this peregrine, or the "yellow behri" as they are wont to call it. After having tried and attempted all the various stratagems and tricks known to these worthies, our Punjabi trappers get exasperated, to the point of shouting abuse at the falcon, for its lordly indifference to all the different baits offered by the trapper in the vain hope of getting the peregrine in to his net.

Having known something of his essential disposition in respect of vertical sky-diving at game, I was able to easily control the tiercel's training programme, and so in a very short time had him flying to the lure without any hesitation. In the beginning I would usually, when the falcon was just about to strike the lure, pull it away from him. The tiercel would then fly straight on, steadily gaining height till he would rise to some two hundred feet. Once more I would swing the lure and shout for him to return. He would immediately swing round to come flying over my head maintaining his height in the air. I would then promptly throw out the lure and the tiercel would immediately make a vertical dive for it. Whereas in the *calidus* peregrines such vertical dives are indeed a regular feature and an integral part and parcel of their nature, some other falcons can also be trained to execute a similar feat once in a while. However it is not easy to teach them this trick and not every bird will take to it.

I trained the tiercel and in a short time he was flying very well. One day while I had him out for exercise in the country, I saw, at the edge of the field I was walking through, a covey of grey partridges feeding. Immediately

I unhooded the tiercel and cast him off my fist. Within no time he was up to his usual height of three hundred feet or so. In the meanwhile I had drawn close to the spot where the covey had scurried into a hedge. By this time the falcon was racing up and down the hedgerow, maintaining his height in the air. Next time as he came directly over my head, I bombarded the bushes with clods of earth I had picked, and shouted at the top of my voice. Pelting the hedge had the desired effect for all the partridges exploded out of the bush, and my hollering had alerted the tiercel, who stooped in a most spectacular manner. And before the covey had gained a few yards, the tiercel had hit one of the partridges which fell back into the hedge with a shrill cry of protest, and amongst a complete shower of its own feathers.

While all this was happening the rest of the covey had got scattered to settle in nearby bramble bushes, and the falcon of course had regained its usual commanding height of three hundred feet or so. Now he was continuously flying back and forth over the spot where the partridge had landed in the hedge. Because the falcon was intended to go to a friend in England, though I had permission to train and hunt with it, I was reluctant to take any further chances with the partridges for it would have meant keeping the falcon up in the air till the partridges could again be flushed. I did not have a dog with me or a helper either, and I knew from experience that getting the birds to break cover now especially after a close shave with the tiercel, would be no easy matter. Anyway I had to keep an eye on the tiercel all the time and this could not be managed simultaneously. Hence the tiercel was called back to the fist. With the falcon securely perched on my fist I attempted to unearth the injured partridge

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which the tiercel had struck. This proved to be an impossible job, though there were feathers scattered all over the place where the partridge was last seen tumbling into the bush. Under such conditions a dog is very handy and if trained, will dig up the quarry that has gone to earth in ninety out of a hundred cases. Sometimes it may happen that a partridge in its blind fear to get away from the pursuing falcon will take refuge in some deserted warren. Under the circumstances even a dog becomes useless, and the enterprising falconer will have to slip his hand into the burrow or hole and reckon with the risk of being bitten by a snake.

The tiercel's end was tragic, for it never got to my friend in England. It was in March 1973 when I daily expected news of arrangements by my friend for the falcon's passage to England to come through that my mother met with an accident resulting in a fracture of the neck of a femur. As a result of this unfortunate incident all our attention was naturally devoted to her needs in the hospital, and I would come home only to feed the hawks (I had a goshawk, an eagle and, this tiercel as well). Within a week I noticed the tiercel going off his food, and it was only when I weighed him that I was shocked to find him much below average. Straight away I suspected worm infestation to be the cause for this loss of weight. When I examined the mutes my suspicion was confirmed, because there were tell-tale traces of blood in its droppings.

With the help of our local vet, I dosed him for worms. This unfortunately had the opposite effect to what I expected. The case was apparently too far gone for any medicine to be effective or of any value. In another few days the falcon threw up a cropfull of food, and the blood in his mutes was now present

in great profusion. It now became abundantly clear that this was the beginning of the end. The end came soon afterwards on the next day or was it the one after next. As usual I woke to the Muezzin's call for prayer early and had just finished my ablutions when I heard the falcon's bells jangling as he fell off his perch in the adjoining room where he had been kept under observation. Prayers unsaid I hurried to his rescue but by the time I got to him he was already in his last throes. It was a great shock to lose him the way I did, and my friend in England must have felt it all the more, but he had unduly delayed its collection. I believe that with better means at his disposal for the detection of nematodes, he in England could have taken care and treated the tiercel right in the early stages when the disease was not at all evident to an observer without the aid of proper pathological assistance.

I presented the dead tiercel to Doctor Asketh Singh of the Zoological Survey of India who has kindly had it mounted and kept for display in the survey's museum hall. When the taxidermist opened up the falcon it was seen that the entire body cavity was teeming with helminths. Some had eaten their way into the air sack to appear in the lungs. A few were also present in the falcon's crop.

In 1943 my uncle obtained a female *calidus* falcon from the hawk market or what used to be the hawk market in those days at Amritsar, and which was run by Chowdry Mohamed Din Bazdar. This beautiful bird which was in her juvenile plumage, had the tip of her beak almost up to the portion of the barb missing. It had happened when an enraged trapper who had spent many hours in trying to lure the falcon to his net, had in the end in sheer desperation taken a pot shot with a catapult at her. This had smashed away her

beak tip. The blow proved to be forceful enough to stun the peregrine, and knock her to the ground. There she lay helplessly and long enough for the trapper to nab her. The imprudent bird catcher who did not know that these birds never came down to catch prey tied to the ground behind a net, had been lucky in not having killed the falcon outright.

In a very short while its beak grew back to its normal length once again, and I am happy to say that she stayed with my uncle till she ultimately departed for the happy hunting grounds at the great old age of ten years. A falcon gets fully matured in almost two years. On the other hand it takes full twenty years or thereabout for a human being to attain all his faculties. This then multiplied by three will give the average human life span. Applying the same factor to that of a peregrine's life span, we arrive at the conclusion that the normal age of a peregrine falcon should within reasonable limits be around six years. So according to human standards, the peregrine had lived to almost twice its average span of six years which again when translated in terms of human longevity comes to over a hundred years. Not bad even by human standards I should think.

In 1955 when I was doing land reclamation work not far from Satyanarian temple, on the Haridwar-Rishikesh road, I watched for over three weeks at a stretch, and in detail, the activities of a female, immature *calidus* falcon. During that period I had with me a trained adult *pergrinus pergrinus* falcon. Very close to my place of work there existed open country of a sort where hunting with a falcon was possible, I would be flying my peregrine at plover, partridges, stone curlew and at times just for the fun of it, at paddy birds, or the lesser kind of cranes, which generally go by

the name of Herons. One day as my peregrine waited on high overhead, in anticipation of my flushing some game out of cover for her to dive and capture, there appeared out of the blue, this wild female *calidus* peregrine falcon. I was first made aware of the wild peregrine's presence by her harsh grating screeches as she started an aerial battle with my trained falcon.

Immediately I called back my peregrine which luckily disengaged from the action and stooped to the lure. Having secured my bird I looked up and watched with satisfaction the wild peregrine swing to perch on the dried limb of a giant tree standing on the bank of the Song River. The place where this happened is just below the railway bridge over the Song river on the Riawalla-Rishikesh link line. It also happened to be just a convenient half mile from the spot where I was camped at the time. From that day onwards and for almost three weeks later, the dead tree and the falcon on the river Song, remained objects of careful observation for me.

I was not at all very keen to catch this falcon at the time for I had a good trained peregrine to while away my spare hours, and yet the urge to capture this beautiful bird, and hold her in my hands even for a little while, for I definitely would not be able to hold her and train her as I had a lot of other work to do, besides keeping two falcons at the same time is no joke, tempted me to attempt its capture inspite of my better judgement. My untiring efforts as I had reckoned, were of no avail. The falcon stubbornly refused to come to the net which I first baited with a blue rock pigeon and later with a shrike I had got. I even tried with a tame partridge to entice her to fly down to the net, but nothing worked.

I usually got to the perch site at the crack of dawn and as often as not would find the





*Falco peregrinus peregrinus* (female), 2 years old.





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peregrine busy on some kill or the other which she had brought to the perch prior to my appearance on the scene. Mostly it would be small water birds such as snipe, kingfishers etc. With the meal over it would naturally be meaningless to expect the falcon to show interest in whatever bait I was to put out for her behind my trap. On several occasions when the peregrine had not thrown up her cast till the time of my arrival on the site, I would patiently set up my net hoping she may fly to it once the cast had been thrown by her. Let me explain that a feather cast which is thrown out by all birds of prey is a ball of undigested feathers that the predator had swallowed in the course of its last meal. This pellet of feathers is disgorged by birds of prey just before sunrise every day. However if a kill has been made by a bird of prey late in the evening, and if the kill is some bird that is as big as say a pigeon, the predator will not then be able to digest the entire quantity eaten in the course of the following night. Till such a time as this is not accomplished, the cast will be retained. The cast remains in the falcon's gizzard along with bits of meat that the falcon or bird of prey took with its last meal. Here the digestive juices in the falcon's system would be actively engaged in the assimilation of the food matter. If in such a state the cast of feathers is expelled, and since this has to come from the gizzard, with it will also be brought up pieces of undigested matter in a most offensive condition, sufficiently repellent to banish all thoughts of dinner from the predator's mind for a long time to come. As a matter of fact bits of meat adhering to any bird of prey's morning cast is indeed a clear indication that all is not going well with it. However a cast thrown up in the normal course, is bound to restore appetite to any bird of prey, and is a signal that it will be

up and on the hunt very soon afterwards.

And on such rare occasions I would wait with hopeful expectation, praying and watching, and feeling miserably cold inside for it would be just about sunrise on a cold winter's morning. I would wait only to see the peregrine fly off the perch after she had thrown her cast of feathers, and watch her go away into the distance rising higher and higher, continuously gaining height. The falcon I noticed would always be flying away from the sun, that is towards the west. I think this was done intentionally, as at such times when the falcon was seeking prey, had it been flying to the east, the sun directly in its eyes would have interfered with its spotting capability. Here the Song river flows in an east-west axis so the falcon would be coursing over the river bed all the time. Looking away from the sun gave me a better chance to follow her movements for a longer distance, but had she flown to the east squinting against the sun would have made it a blinding job to observe her progress.

It was most interesting to watch her manner of working, for she acted quite unlike other peregrines. Once the falcon had attained a certain height she would cease to climb any higher, but would simply continue to fly upriver for some distance by when the movement of some bird or the other directly below would attract her attention, invariably resulting in an almost vertical dive that would end in a certain kill. Immediately the falcon would triumphantly fly back to its perch on the river bed with the prey securely held in her claws. On the return trip to the perch the peregrine would fly it back just a few meters above ground level to shoot up to the perch when she got almost directly below the tree. She would settle half way up on a thick limb. Once comfortably perched she would start feathering the